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S/056/60/039/005/037/051 B006/B077 Scattering of Slow Neutrons in Ferrites and Antiferromagnetics

 e_z is the projection of the vector \vec{e} ($\vec{e} = \vec{q}\vec{q}^{-1}$, \vec{q} - transferred momentum). The following equation is obtained for ferrites:

$$\frac{d\sigma_{o}}{d\Omega} = \frac{1}{2} r_{o}^{2} \gamma_{o}^{2} \frac{(2\pi)^{3}}{v_{o}} \left\{ s_{1}^{2} \middle| F_{1}(q_{o}) \middle|^{2} \left[1 - 2G_{1}(T) \right] e^{-2W_{1}q} + s_{2}^{2} \middle| F_{2}(q_{o}) \middle|^{2} \left[1 - 2G_{2}(T) \right] \right\}$$

$$X e^{-2W2q} - 2S_1S_2 [1-G_1(T)-G_2(T)]$$

$$\times e^{-W_{1q}^{-W_{2q}}} e^{-E_{1}(q)F_{1}^{*}(q)e^{i(q,r_{1}-r_{2})} \sum_{\tau} \delta(q+\tau)(1-e_{z}^{2})$$
 (11)

 $G_{\nu}(T) \text{ is according to the spin wave theory of antiferromagnetics} \\ G(T) = \begin{cases} \frac{\gamma\mu^2}{12a^3\theta_C} \left(\frac{T}{\theta_C}\right)^2, & \frac{\mu M_0\sqrt{2\beta\gamma}}{T} \ll 1. \\ \frac{\gamma\mu}{\pi^2a^3\theta_C} \left(\frac{T}{\theta_C}\right)^2 \left(\frac{2\mu M_0\sqrt{2\beta\gamma}}{T}\right)^{3/2} \exp\left\{-\frac{\mu M_0\sqrt{2\beta\gamma}}{T}\right\}, & \frac{\mu M_0\sqrt{2\beta\gamma}}{T} \gg 1. \end{cases}$

$$G(T) = \begin{cases} \frac{12a^{2}\theta_{c}}{2a^{3}\theta_{c}} \left(\frac{T}{\theta_{c}}\right)^{2} \left(\frac{2\mu M_{o}\sqrt{2\beta\gamma}}{T}\right)^{3/2} \exp\left\{-\frac{\mu M_{o}\sqrt{2\beta\gamma}}{T}\right\}, & \frac{\mu M_{o}\sqrt{2\beta\gamma}}{T} \gg 1. \end{cases}$$

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Scattering of Slow Neutrons in Ferrites and Antiferromagnetics

s/056/60/039/005/037/051 B006/B077

and for ferrites

$$G_{1,2}(T) = \frac{\mu^{M}_{o}(1,2)\Gamma(3/2)\xi(3/2)}{4\pi^{2}a^{3} \left(M_{10}-M_{20}\right)^{2}} \left(\frac{T}{\theta_{c}}\right)^{3/3}; \beta \text{ is the magnetic anisotropy}$$

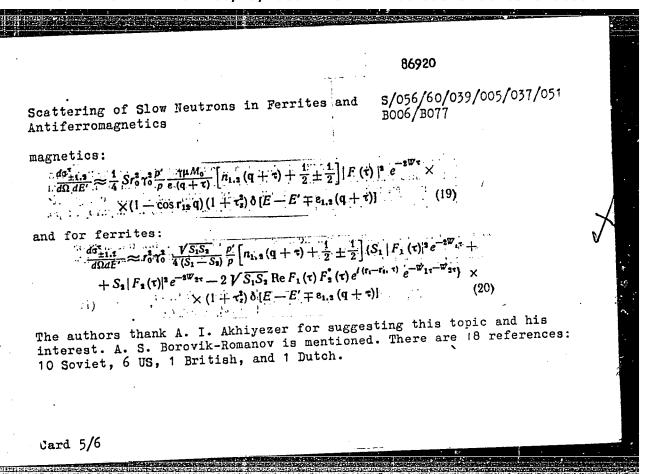
constant, $\gamma \sim \theta_{\rm c}/\mu M_{\rm o}$. The neutron scattering cross section (in the case of emission or absorption of one spin wave) is given by

$$\frac{d\sigma_{\pm 1,2}}{d\Omega dE^{h}} = \frac{r_{0}^{2} \gamma_{0}^{2}}{4} \sqrt{S_{1}S_{2}} \int dk \frac{\rho'}{\rho} \sum_{\tau} \delta(q \mp k + \tau) (n_{1,2} + \frac{1}{2} \pm \frac{1}{2}) \times \\ \times \{u_{k}^{2} | F_{1}(q)|^{2} e^{-2W_{1q}} + v_{k}^{2} | F_{2}(q)|^{2} e^{-2W_{2q}} - \\ -2u_{k} v_{k} e^{-W_{1q} - W_{2q}} \operatorname{Re} F_{1}(q) F_{2}^{*}(q) e^{iq (r_{4} - r_{2})} (1 + e_{2}^{2}) \delta(E - E' \mp e_{1,2}(k)), \\ n_{1,2}(k) = [\exp \{e_{1,2}(k)/T\} - 1]^{-1}.$$
(18)

 $n_{1,3}(R) = \{ \exp \{ e_{1,2}(R) \}^{1/2} \}^{-1/2}$.

If $a | \vec{q} + \vec{\tau} | \ll 1$ (a - lattice parameter) so is for the antiferro-

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Scattering of Slow Neutrons in Ferrites and S/056/60/039/005/037/051
Antiferromagnetics S/056/60/039/005/037/051

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut Akademii nauk SSSR (Leningrad Institute of Physics and Technology of the Academy of Sciences USSR). Fiziko-tekhnicheskiy institut Akademii nauk Ukrainskoy SSR (Institute of Physics and Technology of the Academy of Sciences Ukrainskaya SSR)

SUBMITTED: July 2, 1960

Card 6/6

s/056/61/041/005/030/038 B102/B138

24.2200 (1144, 1147, 1160)

AUTHORS:

Izyumov, Yu. A., Maleyev, S. V.

TITLE:

Scattering of polarized neutrons in ferromagnetic and anti-

ferromagnetic materials

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41,

no. 5(11), 1961, 1644 - 1648

TEXT: In a previous paper (ZhETF, 40, 1224, 1961) Maleyev showed that slow unpolarized neutrons are magnetically scattered in ferromagnetic materials. Part of the cross section is due to inelastic magnetic scattering and part to magnetic-vibrational scattering. These terms are investigated in the present paper also, but for the case of polarized neutrons, when the polarization vector not only varies in value but may also rotate. It is shown how the parts of the cross section which are due to inelastic magnetic and magnetic-vibrational scattering can, for a given direction, be separated. For ferromagnetic materials the neutron polarization vector after scattering is defined by $\vec{P} = Sp f + \vec{\sigma} f Q / Sp f + f Q$, where

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Scattering of polarized...

 $\vec{o}/2$ is the neutron spin and $\varrho=(1+\vec{o}\vec{P}_0)/2$ is the spin matrix of the incident neutron density; f is the scattering amplitude, determined according to Halpern-Jonson by

$$f = \frac{1}{N} \sum_{l} e^{i\mathbf{q}\mathbf{R}_{l}} \left[A_{l} + \frac{1}{2} B_{l} (\mathbf{I}_{l}\sigma) \right] - \frac{N_{m}}{N} \frac{1}{N_{m}} \sum_{l} e^{i\mathbf{q}\mathbf{R}_{l}} \times \mathbf{r}_{o}F (q) (\sigma - (\mathbf{e}\sigma) \mathbf{e}, \mathbf{S}_{l}).$$
(3)

 R_1 and $A_1 + B_1(I_1\sigma)/2$ denote coordinate and amplitude of nuclear scattering for the 1-th a+om, I_1 its nuclear spin, N is the total number of atoms in the system, N_m the number of magnetic atoms, R_j and S_j - coordinate and spin of the j-th magnetic atom, q = p-p; the momentum trans: d from the neutron to the scatterer, e = q/q, F(q) the magnetic formfactor of the neutron to the absolute magnitude of the magnetic moment of the neutron in atom, ψ the absolute magnitude of the magnetic moment of the neutron in nuclear magnetons and $r_0 = e^2(mc^2)^{-1}$ the electron radius. With $N_m = N$ and $\sum_{i=1}^{n} \sum_{j=1}^{n} it$ is easy to calculate the vector of polarization due to nuclear Card 2/6

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Scattering of polarized...

scattering and interference between nuclear and magnetic scattering, and the vector of polarization due to inelastic magnetic scattering. The polarization vector for incoherent nuclear scattering of the neutrons is given by

 $P_{\text{HEK}} = P_0 \frac{|\overline{A_I}|^2 - |\overline{A_I}|^2 - \frac{1}{12}|\overline{B_I}|^2 I_I(I_I + 1)}{|\overline{A_I}|^2 - |\overline{A_I}|^2 + \frac{1}{4}|\overline{B_I}|^2 I_I(I_I + 1)}$ (4),

for scattering without change of the magnetic state of the scatterer:

$$P_{nm} = \{P_0 | \overline{A}_I|^2 - 2\gamma r_0 F(q) \langle S_z \rangle (\text{Re } \overline{A}_I M + \text{Im } \overline{A}_I [\text{MPo}]) + \gamma^2 r_0^2 F^2(q) \langle S_z^2 \rangle [2M (\text{MP}_0) - P_0 M^2] \} \{ |A_I|^2 - 2\gamma r_0 F(q) \langle S_z \rangle \text{Re } \overline{A}_I (\text{MP}_0) + \gamma^2 r_0^3 F^2(q) \langle S_z^2 \rangle M^2 \}^{-1},$$
 (5)

with $\vec{M} = \vec{m} - (\vec{em})\vec{e}$, where \vec{m} is the unit vector in the direction of magnetization of the scatterer, <Sz> is the mean atomic-spin projection on to the direction of magnetization, $\langle S_z \rangle^2 = \langle S_z^2 \rangle$. The polarization vector for scattering with emission (+) or absorption (-) of a spin wave is $\mathbf{P}_{m}^{\pm} = \frac{\mp 2e\,(\mathrm{em}) + 2\mathbf{M}_{x}\,(\mathbf{M}_{x}\mathbf{P}_{0}) + 2\mathbf{M}_{y}\,(\mathbf{M}_{y}\mathbf{P}_{0}) - \mathbf{P}_{0}\,(\mathbf{M}_{x}^{2} + \mathbf{M}_{y}^{2})}{1 + (\mathrm{em})^{2} \pm 2\,(\mathbf{P}_{0}e)\,(\mathrm{em})}$ given by

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S/056/61/041/005/030/039 B102/B138

Scattering of polarized...

 $(\vec{n}$ is perpendicular to the xy plane) and the mean polarization vector for neutron scattering in a given direction \vec{n} is defined by

$$P = \frac{P_{\text{Ment}}\sigma_{\text{neth}}(n) + P_{nm}\sigma_{nm}(n, P_0) + P_m^+\sigma^+(n, P_0) + P_m^-\sigma^-(n, P_0)}{\sigma_{\text{neth}}(n) + \sigma_{nm}(n, P_0) + \sigma_m^+(n, P_0) + \sigma_m^-(n, P_0)}.$$
 (8)

where σ_{WCK} is the cross section for incoherent nuclear scattering, and $\frac{\sigma_{nm}(n, P_0)}{\sigma_n(n)} = 1 + \frac{-2\gamma r_0 F(q) \langle S_z \rangle \operatorname{Re} \overline{A_l M P_0} + \gamma^4 r_0^2 F^2(q) \langle S_z^2 \rangle M^2}{|\overline{A_l}|^2}.$ (9)

$$\frac{\sigma_{nm}(n, P_0)}{\sigma_n(n)} = 1 + \frac{-2\gamma r_0 F(q) \langle S_2 \rangle \operatorname{Re} \overline{A_i M} P_0 + \gamma^4 r_0^2 F^2(q) \langle S_2^2 \rangle M^3}{|\overline{A_i}|^3}.$$
 (9)

$$\frac{\sigma_m^{\pm}(n, P_0)}{\sigma_m^{\pm}(n)} = \frac{1 + (em)^2 \pm 2 (P_0 e) (em)}{1 + (em)^2} , \qquad (10) ,$$

where $\sigma_{n}(\vec{n})$ is the nuclear scattering cross section for unpolarized neutrons and $\sigma_m(\vec{n})$ that for magnetic scattering of unpolarized neutrons; $\sigma_{nm}^{+}(\vec{n},\vec{P}_{0})$ is the cross section of coherent cattering of polarized neutrons. If \vec{P} and the total cross section $\sigma(\vec{n}, \vec{P}_0) = \sigma_{mn}(\vec{n}, \vec{P}_0) + \sigma_{m}(\vec{n}, \vec{r}_0)$ + $\sigma_{m}(\vec{n},\vec{P}_{0})$ are measured, the relations given make it possible to determine

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26715 \$/056/\$1/041/005/030/038 B102/B138

Scattering of polarized ...

 $\sigma_{nm}(\vec{n},\vec{P}_{o})$, $\sigma_{m}(\vec{n},\vec{P}_{o})$ and $\sigma_{n}(\vec{n},\vec{P}_{o})$ and also $\sigma_{n}(\vec{n})$ and $\sigma_{m}(\vec{n})$. For scattering in antiferromagnetic materials $\vec{P}_{incoh} = \alpha \vec{P}_{o}$ with

$$\alpha = \frac{\sum \left\{ (|A_{\ell}|^2 - |\overline{A}_{\ell}|^3) - \frac{1}{12} |\overline{B}_{\ell}|^2 I_{\ell}(I_{\ell} + 1) \right\} e^{-2W_{\ell}}}{\sum \left\{ (|A_{\ell}|^2 - |\overline{A}_{\ell}|^3) + \frac{1}{4} |\overline{B}_{\ell}|^2 I_{\ell}(I_{\ell} + 1) \right\} e^{-2W_{\ell}}}.$$
 (12)

for elastic scattering. In coherent nuclear scattering there is no change in polarization. The vector of polarization due to scattering without change of the magnetic state of the scatterer is given by $\overrightarrow{P}_{mo} = 2(\overrightarrow{MP}_{o})\overrightarrow{M}/M^{2}-\overrightarrow{P}_{o} \text{ with } \overrightarrow{M} = \overrightarrow{m}_{o}(\overrightarrow{em})\overrightarrow{e} \text{ for an antiferromagnetic with two sublattices. When, during scattering, the number of spin waves is changed by one, <math display="block">P_{mi} = 2\frac{P_{oi} - e_{i}(P_{oe}) + e(em)(MP_{o})}{1 + (em)^{3}} - P_{o}, \tag{16}$

holds. \vec{P}_{01} and \vec{e}_{1} are components of \vec{P}_{0} and \vec{e}_{1} , $\vec{P}_{01} = \vec{P}_{0} - (\vec{P}_{m})\vec{m}$. With

$$P = \frac{\alpha \sigma_{\text{neh}}(n) P_0 + \sigma_{mn}(n) P_{m0} + \sigma_{m1}(n) P_{m1}}{\sigma_n(n) + \sigma_{m0}(n) + \sigma_{m1}(n)}.$$
 (17)

Card 5/6

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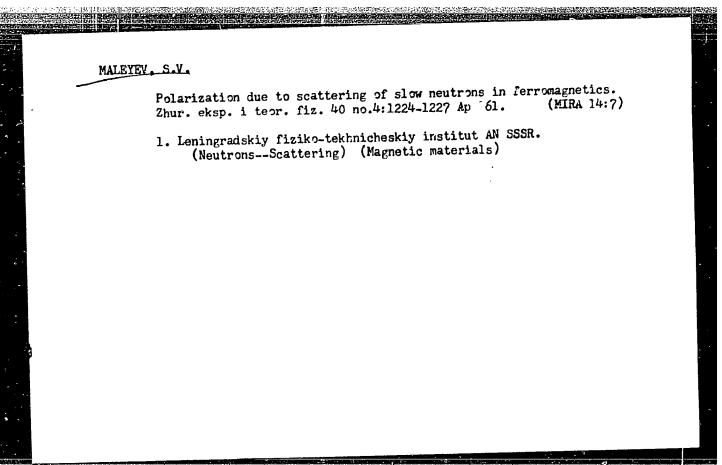
Scattering of polarized ...

 α , $\sigma_{mo}(\vec{n})$ and $\sigma_{m1}(\vec{n})$ can be determined when \vec{P}_{o} and $\sigma(\vec{n}) = \sigma_{n}(\vec{n}) + \sigma_{mo}(\vec{n}) + \sigma_{mo}(\vec{n})$ are known. There are 4 references: 3 Soviet and 1 non-Soviet. The latter reads as follows: 0. Halpern, M. Jonson. Phys. Rev., 55, 898, 1939.

ASSOCIATION: Leningradskiv fiziko-tekhnicheskiy institut Akademii nauk SSSR (Leningrad Physicotechnical Institute of the Academy of Sciences USSR) Institut fiziki metallov akademii nauk SSSR (Institute of Physics of Metals of the Academy of Sciences USSR)

SUBMITTED: June 9, 1961

Card 6/6



MALEYEV, S.V.

Analytic properties of the single-Fermion Green function in the quantum theory of many particles. Zhur. eksp. i teor. fiz. 41 no.5:1675-1680 N '61. (MIRA 14:12)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR. (Potential, Theory of) (Quantum theory)

44170

3/181/62/004/012/017/052 B104/B102

24 (550)

AUTHORS:

Maleyev, S. V., Bar'yakhtar, V. G., and Suris, R. A.

TITLE:

The scattering of slow neutrons from complex magnetic

atructures

PERIODICAL: Fizika tverdogo tela, v. 4, no. 12, 1962, 3461-3470

TEXT: The elastic scattering of slow polarized neutrons is investigated for magnetic substances in which the orientation of the atomic spins changes periodically from one atom to the other (e.g. Dy, Er and others). The period of these changes depends on the lattice constant and on temperature. Starting from the representation of the neutron scattering amplitude as given by O. Halpern and M. Jonson (Phys. Rev., 55, 898, 1939), the equations

$$\sigma_{mi}^{(\pm)}(\mathbf{q}) = r_0^2 \tau^2 F^2(\mathbf{q}) \langle S^2 \rangle e^{-2W_q} d(\mathbf{q} \pm \mathbf{k}) (L_i^2 + M_i^2 \pm 2P_0[\mathbf{L}_i \mathbf{M}_i]), \tag{15}$$

$$P_{mi}^{(\pm)}(\mathbf{q}) = \frac{2(\mathbf{L}_{i}P_{o})\mathbf{L}_{i} + 2(\mathbf{M}_{i}P_{o})\mathbf{M}_{i} - P_{o}(\mathbf{L}_{i}^{3} + \mathbf{M}_{i}^{3}) \mp 2[\mathbf{L}_{i}, \mathbf{M}_{i}]}{\mathbf{L}_{i}^{2} + \mathbf{M}_{i}^{2} \pm 2P_{o}[\mathbf{L}_{i}\mathbf{M}_{i}]}.$$
(16)

Card 1/3

s/181/62/004/012/017/052 B104/B102

The scattering of slow neutrons ...

are obtained for the scattering cross section and for the polarization of the scattered neutrons. Here \vec{q} is the momentum transferred to the crystal by the neutron, \vec{k} is the wave vector of the neutron, \vec{L}_i = Re \vec{N}_i and \vec{M}_i = Im \vec{N}_i , S_1 is the spin of a magnetic atom,

$$N_{0,i} = a_{0,i} - (a_{0,i} \circ) \circ$$
.

$$\mathbf{e}_{ci} = \mathbf{a}_0 + \sum_{i} (\mathbf{a}_i e^{-i\mathbf{k}_i \mathbf{R}_i} + \mathbf{a}_i^* e^{i\mathbf{k}_i \mathbf{R}_i}), \qquad (7),$$

$$S_{i} = \epsilon_{\zeta i} S_{\zeta i} + \epsilon_{\eta i} S_{\eta i} + \epsilon_{\zeta i} S_{\zeta i}, \qquad (6),$$

is the unit vector in the direction $\langle \tilde{s}_1 \rangle$. From (16) it follows that the scattered neutrons are polarized along the vector $\begin{bmatrix} \tilde{L}_1 \vec{M}_1 \end{bmatrix}$ if the incident neutrons are unpolarized. For determining the vectors \vec{a}_1 and \vec{a}_1^{μ} , the vectors \vec{L}_1 and \vec{M}_1 must be known for two different Card 2/3

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The scattering of slow neutrons ...

reflections, whereby the angle between the two vectors $\mathbf{e} = \mathbf{q} \cdot \mathbf{q}^{-1}$ must not be small. The determination of the vectors \mathbf{L}_{i} and \mathbf{M}_{i} for a fixed

reflection is discussed. Finally, the scattering from the following structures are discussed: (1) Simple umbrella structure; (2) modulated umbrella structure; (3) umbrella structure with revolution; (4) slanted fence; (5) linear spin wave.

ASSOCIATION: Fiziko-tekhnicheak'y institut im. A. F. Ioffe AN SSSR,

Leningrad (Physicotechnical Institute imeni A. F. Ioffe

AS USSR, Leningrad)

SUBMITTED: Jul

July 6, 1962

Card 3/3

1,7931

S/056/62/043/003/046/063 B108/B102

AUTHOR:

Maleyev, S. V.

TITLE:

Properties of a rarefied Fermi gas with attraction

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 3(9), 1962, 1044 - 1052

TEXT: A rarefied Fermi gas with weak interaction at absolute zero is considered. The operator for the fermion self-energy,

 $M(p) = \frac{1}{2\pi i} \int d^4l G(l) \left[2\Gamma(p, l, 0) - \Gamma(p, l, p - l) \right], \tag{1}$

is found by summing up the graphs of perturbation theory. $\Gamma(p,1,q)$ is the effective energy of two-particle interaction; in the form $\Gamma(\vec{g},\Omega)$, where $2\vec{g}=\vec{p}+\vec{1}$, it can be rendered in terms of the two-particle Green function (V. M. Galitskiy. ZhETF, 34, 151, 1958). Ω is the total energy $\alpha_p + \omega_1$. In first approximation, the solution of Eq. (1) is

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S/056/62/043/003/046/063 B108/B102

Properties of a rarefied Fermi...

$$M(p) = \frac{1}{2\pi i} \int d^4 l \Gamma_0(p+l) G_0(l), \qquad (18),$$

$$\Gamma_0 (p+l) = C\delta (\mathbf{p}+\mathbf{l}) \delta (\mathbf{l} + AI_0 (\Omega)), \tag{19}$$

This result was obtained by introducing coupled Cooper pairs which may be observed in a temperature independent contribution to the current due to tunneling, where G_0 is the Green function for particles without any interaction. G_0 has one pole which is responsible for the gap in the spectrum of the single fermion excitations.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut Akademii nauk SSSR (Leningrad Physicotechnical Institute of the Academy of Sciences USSR)

SUBMITTED: April 9, 1962

Card 2/2

5/181/63/005/004/034/047 B102/B186

AUTHORS t

Bar yakhtar, V. G., and Maleyev, S. V.

TITLE

Inclustic acattering of slow neutrons in substances with

spiral magnetic structure

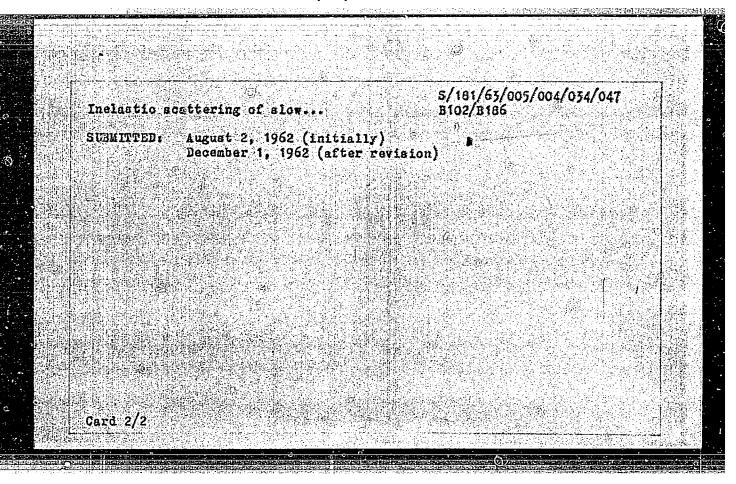
PERIODICAL: Fizika tverdogo tela, v. 5, no. 4, 1963, 1175 - 1180

TEXT: The inclustic scattering of slow neutrons from helical magnetic structures (such as e.g. in Dy at 87 - 1790K or Er at 4.2 - 200K) is investigated theoretically for the case when this scattering is accompanied by absorption or emission of one spin wave. The calculations are based on Emplan's Hamiltonian (Phys. Rev. 124, 329, 1961) which takes anisotropy into account; only the anisotropy in the basal plane is neglected. Formulas are derived for the differential acattering cross sections for the case of a single-domain scatterer. A formula is obtained also for neutron polarization after scattering.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR grad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad; Fiziko-tekhnicheskiy institut AN USSA Kiyev

(Physicotschnical Institute AS UkrSSR Kiyev)

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031810003-4



MALEYEV, S.V.

Using the resonance capture of neutrons in studying the vibration spectra of impurity atoms in crystals. Fiz. tver. tela 6 no.9:2717-2722 S '64.

(MIRA 17:11)

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1. Fiziko-tekhnicheskiy institut imeni A.F. Ioffe AN SSSR, Leningrad.

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scattered protons	contains practically	no information on	the scatterer if $\tau \neq 0$.	
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ENT(d)/ENT(1)/T/ENA(m)-2 ACC NR. AP5025376 SOURCE CODE: UR/0181/65/007/010/2990/2994 94.55 62 AUTHOR: Haleyev, S. V. B 44155 ORG: Physicotechnical Institute im. A. F. loffe. Leningrad (Fiziko-tekhnicheskiy institut) TITLE: Three-dimensional generalization of the Kronig-Permey model SOURCE: Fizika tverdogo tela, v. 7, no. 10, 1965, 2990-2994 TOPIC TAGS: particle physics, theoretic physics, Kronig Penney model, nuclear model, crystal lattice, energy theory, Green function, wave function ABSTRACT: The Goldberger-Seitz dispersion equation for the Kronig-Penney model is considered. The motion of an electron is studied in a field of point centers of force which form a three-dimensional crystal lattice and are characterized by a single parameter—the scattering amplitude. It is found that an exact expression may be given in this type of system for the wave function and the Green function, and also that an exact dispersion equation may be derived for the energy as a function of the wave vector. The properties of the solutions for this equation are discussed and it is shown that in one of the limiting cases the expression for the energy coincides with that derived in the strong bond approximation. SUB CODE: 20/ SUBM DATE: 28Apr65/ ORIG REF: 001/ OTH REF: 002 Celv

L 10584-66 EWT(m)/EPF(n)-2/EWA(h) ACC NR: AP5025387 SOURCE CODE: UR/0181/65/007/010/3063/3069 AUTHOR: Ginzburg. ORG: Physicotechnical Institute im. A. F. Loffe AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR) TITLE: Some polarization effects during neutron scattering in solids SOURCE: Fizika twerdogo tela, v. 7, no. 10, 1965, 3063-3069 TOPIC TAGS: theoretic physics, neutron cross section, neutron scattering, neutron polarization, solid state physics ABSTRACT: The authors discuss polarization effects which occur when neutrons are scattered by impurities and by conduction electrons in metals. It is shown that polarization of neutrons scattered in a given direction may be determined as a function of the energy of the scattered neutrons to isolate from the experimental data the contribution due to scattering by impurities in the case where the impurity is an atom with nuclear spin or a paramagnetic atom. Approximate formulas which are true at small scattering angles are derived for the cross section and polarization of scattered neutrons in the case of scattering by conduction electrons. It is shown that the polarization of the scattered neutrons is strongly dependent on the mutual orientation of the incident beam, the polarization vector of the incident Card 1/2

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AUTHOR: Maleyer, S. V.

TITIE: Inelastic small-angle scattering of neutrons in ferromagnets

SCERCE: Zhurnal eksperimental now i teoreticheskoy fiziki, v. 48, no. 5, 1965,
1448-1458

TOPIC TAGS: neutron scattering, small angle scattering, ferromagnet, slow neutron, spin wave dispersion, neutron polarization

ABSTRACT: The author considers small-angle inelastic scattering of slow neutrons in a ferromagnet, in the case when the change in the neutron energy during the scattering is commarable with the energy of the magnetic interaction of the atomic spins

in a ferromagnet, in the case when the change in the houten energy of the magnetic interaction of the atomic spins with one another and with the external magnetic field. The analysis is confined to the cases when the magnetic field is either parallel or perpendicular to the incident beam. It is shown that in this case the dispersion can no longer be assumed quadratic, and that the general expression must be used for the dispersion. It turns out that scattering with absorption of a spin wave occurs in a wider range of angles than scattering with emission of a spin wave. In the range of angles where only scattering with absorption takes place, the cross section should be strongly dependent on the neutron polarization in some cases, and if the incident neutrons

Card 1/2

neutrons are sufficiently subscription or emission of a angle scattering in ferroma ic. I, Zabidarov, Ya. A. Ke esting discussions, and A.	slow, there can be no neutr a single spin wave. Some r agnets are discussed. "The	author thanks G. M. Drabkin, V. A. Trunov for many inter- with whom many problems	
그것으로 보다는 어느 아내를 가장 하면 하는 것이 없는 그리고 있다. 그 그는 이 상대를 하셨다면 했다고 있는데,		Toppo Abadomii namb CCCD	
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L 42300-66 EWT(1)/EWT(m) IJP(c) AT

ACC NR: AP6026676

SOURCE CODE: UR/0181/66/008/009/2320/2325

AUTHOR: Ginzburg, S. L.; Maleyev, S. V.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR, Leningrad (Fiziko-tekimicheskiy institut AN SSSR)

TITLE: Scattering of slow neutrons in superconductors

SOURCE: Fizika tverdogo tela, v. 8, no. 8, 1966, 2320-2325

TOPIC TAGS: electron scattering, conduction electron, neutron scattering, slow neutron, superconducting material

ABSTRACT: The problem of the conduction-electron scattering of slow neutrons in superconductors is examined. It is shown that in a number of cases the scattering cross section can be several times greater than the electron scattering section in normal metal at the same temperature. Expressions are also derived for polarization of scattered neutrons. Unlike the cross section, polarization with scattering in superconductors differs little from polarization with scattering in normal metals. Using standard methods, the neutron-electron scattering cross section is presented in the following form:

Card 1/2

L 42300-66

ACC NR: AP6026676

$$\frac{ds}{d\Omega dE'} = \frac{e^2 \gamma^2}{c^4} \frac{p'}{p} \frac{1}{q^2} K_{e3}(q, \omega) (\hat{o}_{e3} - e_a e_b),$$

$$K_{e3}(q, \omega) = \frac{V}{2\pi} \int_{-\infty}^{\infty} dt d\mathbf{r} e^{i\omega t - iqx} \langle j_a(\mathbf{r}, t) j_3(0) \rangle.$$
(1)

However, the authors emphasize that the detection of the effects in question are at the limit of present-day experimental possibilities, therefore it is reasonable to speak only about investigating the angular distribution of scattered neutrons but not about the quantity $\frac{d\sigma}{d\Omega dE'}$, especially in the latter case a presently unachieveable energy resolution (less than 1°) would be required. Therefore there is no sense in considering the possibilities of a detailed study of the electron spectrum in superconductors by means of neutrons. The authors thank G, M. Drabkin who called their attention to the problems examined in the article. Orig. art. has: 11 formulas.

SUB CODE; 20/ SUBM DATE: 04Dec65/ ORIG REF: 003

Card 2/2

ACC NRI	AP7003238	SOURCE CODE:	UR/0056/66/051/006/1940/1951
100 11111	AP(00)230		

AUTHOR: Maleyev, S. V.

ORG: Physicotechnical Institute im. A. F. Ioffe, Academy of Sciences, SSSR (Fizikotekhnicheskiy institut Akademii nauk SSSR)

TITLE: Electron scattering by an impurity with spin

SOURCE: Zh eksper i teor fiz, v. 51, no. 6, 1966, 1940-1951

TOPIC TAGS: electron scattering, impurity scattering, electron spin resonance, scattering amplitude

ABSTRACT: The author solves the problem of the scattering of an electron in a metal by an impurity with spin, at zero temperature, using a set of equations derived for a model problem in which an ideal Fermi gas interacts at zero temperature with a pointlike impurity. By examining the analytic and unitary properties of the scattering amplitude obtained in this case, the results are extended to obtain an expression for the scattering amplitude in the entire region near the Fermi surface. The series expansion of this solution in powers of the interaction, up to second power inclusive, coincides with the corresponding perturbation-theory series. The behavior of the amplitude as a function of the energy depends on the sign of the exchange part of the interaction. If this sign is negative, then the maximum cross section, equal to $4\pi k_F^{-2}$, is reached when $E=E_F$ (E_F - limiting Fermi energy). The behavior of the scattering phase shifts near the limiting Fermi energy has nothing in common with the

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resonance dositive, to results to conclusion him in this and I. T.	described by the then the cross se a real system of . The author the s question, and Y Dyatlov for value	interacting e	lectrons (Fermich and I. Ya.	ni liquid) . Korenblit	is discussed i for interesti they. G. S. De	n the ing
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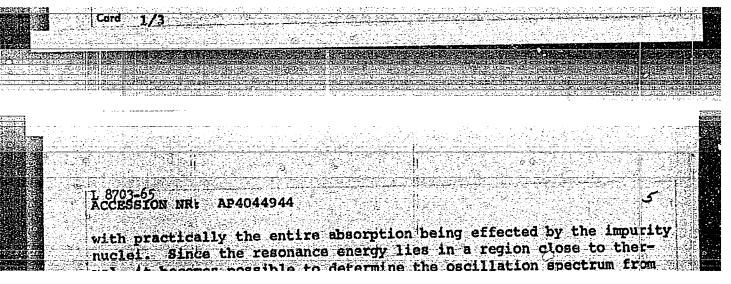
AUTHOR: Maleyev: S. V. S
TITLE: On the possible use of resonance neutron capture for the in-.

vestigation of the vibration spectrum of impurity atoms in crystals of the control of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of impurity atoms in crystals of the vibration spectrum of th

SOURCE: Fizika tverdogo tela, v. 6, no. 9, 1964, 2717-2722

TOPIC TAGS: neutron capture, resonance capture, vibration spectrum, absorption spectrum, neutron absorption, impurity denter

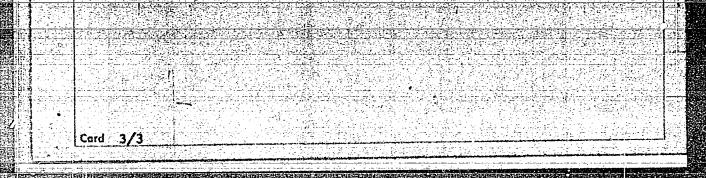
ABSTRACT: A hypothetical experiment, involving considerable difficulty, is proposed for determining the oscillation spectrum of an impurity nucleus in a crystal from the energy and temperature dependence of the absorption cross section. This is done by adding a small amount of nuclei capable of resonance capture of neutrons



nuclei. Since the resonance energy lies in a region close to the mal, it becomes possible to determine the oscillation spectrum from the energy dependence of the absorption cross section. The accuracy of such a method is estimated to be of the order of 10% at high frequencies. The method is not suitable for the determination of local frequencies, so that the impurity atom should be much heavier than the host atom. Particular interest would attach to heavy impurities in a host of vanadium, since the spectral distribution for vanadium is known from neutron experiments. "The author thanks I. M. Band, V. N. Guman, A. D. Piliya, and G. M. Elizabberg for a discussion of the problems touched upon in the paper." Orig: art. has: 13 formulas.

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- 1. FRANK-KAMENETSKIY, MAILYEV, T.P.
- 2. USSR (600)
- 4. Transcarpathia-Hydrocarbons
- 7. Curtisite form Transcarpathia. Dokl. AN SSSR 88 no. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

8(6)

SOY/112-59-5-8597

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 28 (USSR)

AUTHOR: Maleyev, V. A.

TITLE: Experience With Automating the Turbine Equipment at the Shchekino Regional Electric Station

PERIODICAL: Sb. inform. materialov Mosenergo, 1957, Nr 14, pp 52-58

ABSTRACT: The following equipment is being automated: deaerators — level and pressure controls; high-pressure reheater ROU — tube break protection; feedwater and condensate pumps — starting of reserve units; turbines — steam feed to the end packings and condensate recirculation at low load. Only electromechanical controllers available at the station are used. The above automating measures will cut service personnel by 10-11 men per shift.

S.M.B.

Card 1/1

MALEYEV, V. F.

MALEYEV, V. F. Inzh. i MCRGENSHTERN, N. V. Inzh., KHESIV. VV. D. St. Wanche. Sotv.

Leningradskiy filial Vsesoyuznogo reuchno-issledovateliskogo instituto stroitelinogo i dorozhnogo maelinostroyeniya

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SO: Collection of Annotations of Scientific Research Work on Construction, completed in 1950, Moscow, 1951

Late results of drainage therapy of acute burns of the esophagus caused by corrosive substances. Vrach.delo no.12:1313-1314
D'56.

1. Klinika bolezney ukha, gorla i nosa (zav. - prof.S.F.Letnik)
Stalinskogo mediteinskogo instituta.
(BURNS AND SCALDS) (ESOPHAGUS)

DOLZHENKO, S.V., kandidat meditsinskikh nauk; Kaleyev, V.P., subordinator

Late results of using the drainage method in treatment of
esophageal burns. Vest.oto-rin. 19 no.2:15-17 Kr-Ap *57.
(MERA 10:6)

1. Iz kliniki bolemny ukha, gorla i nosa (dir. - prof.
S.F.Letnik) Stalinskogo meditsinskogo instituta.
(ESOPHAGUS, stenosis
caustic, tehr., drainage method, remote results (Rus))

Compilers: MALEYEV, V. P.; MURAV'YEV, O. A.; POBEDIMOVA, Ye. G.; POYARKOVA, A. I.; PROKHANOV, Ye. I.; SFISHKIN, B. K.; SHTEYNBERG, Ye. I.; YUZEPCHUK, S. V.; AFANAS'YEV, K. S.; BORISOVA, A. G.; VASIL'YEV, V. N.; GORSHKOVA, S. G.; ILIN, M. M.; KLOKOV, M. V.; KOMAROV, V. L. (Acad.); Editors: SHISHKIN, B. K.; EOBROV, Ye. G.

Flora of the USSR, Vol 15, Moscow-Leningrad, 743 pp., 1950

Book W-22202, 7 Apr 52

GURONINA, E.P.; MALEYEV, V.P.; SMIRNOV, P.A.; STANKOV, S.S.

Report on pollen species of the genus Tilia L. which occur in the U.S S.R.
Trudy Inst.geog. no.52:104-126 '52. (NURA 7:1)

(Follen, Foseil)

MALEYEV, V. P.

IKONNIKOV, S.S.; ISMAILOV, M.; KNORRING, I.G.; KOROLEVA, A.S.; KUDRYASHEV, S.H.; MALEYEV, V.P.; MASLENNIKOVA, T.I.; MEVSKIY, S.A.; HIKITIN, V.A.; OVCHINNIKOV, P.N.; PLESHKO, S.I.; POPOV, N.G.; SIDORENKO, G.T.; CHUKAVINA, A.P.; SHIBKOVA, I.F.; BORISOVA, A.G., redaktor; VASIL'CHENKO, I.T., redaktor; NEUSTRUYEVA, O.E., redaktor; ZEMDEL', R.Ye., tekhnicheskiy redaktor

[Flora of the Tajik S.S.R.] Flora Tadzhikskoi SSR. Moskva, Izd-vo Akad.nauk SSSR. Vol.1. [Pteridophyta - Gramineae] Paporotnikoobraznyezlaki. Glav.red. P.M.Ovchinnikov. 1957. 547 p. (MIRA 10:9) (Tajikistan--Botany)

39253

S/141/62/005/002/015/025 E192/E382

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TITLE:

AUTHOR: Laleyev, V. Ya.

The scattering equation of a magnetron

PERTODICAL: Izvestiya vyschikh uchebnykh zavedeniy, Radiofizika, v. 5, no. 2, 1962, 333 - 342

TEXT: The interaction of a flat electron beam with the azimuthal E-wave in a cylindrical magnetron is analyzed. A polar coordinate system ϕ , r, z is assumed so that the only field components to be considered are E_{ϕ} , E_{r} and H_{z} . The

analysis is based on the Maxwell equations and the equations of motion in their hydrodynamic form. First, the steady-state conditions are considered and the Brillouin-type solution of the equations of motion is given, which shows that the radius r of the limiting surface between the beam and the vacuum is expressed by:

Card 1/4

S/141/62/005/002/015/025 E192/E382

The scattering equation

$$r_{o}^{2} \left\{ \left(1 - \frac{r_{X}^{4}}{r_{o}^{4}} \right) \ln \frac{r_{o}}{r_{a}} - \frac{1}{2} \left(1 - \frac{r_{X}^{2}}{r_{o}^{2}} \right)^{2} = \frac{t_{mc}^{2} V}{eH_{o}^{2}}$$
 (15)

where Ho is the applied uniform magnetic field,

V is the applied voltage,

 $r_{\rm w}$ is the radius of the cathode and

r is the radius of the anode.

The solution of the basic equations is then assumed to be in the form of steady-state values and a sinusoidal component. It is shown that also in this case the distribution of the radial field in the presence of electrons in the vicinity of the point $r=r_0$

is similar to that of a "cold" system. However, in the presence of the alternating field the limiting boundary between the electron beam and the vacuum undergoes a perturbation so that it is possible to determine the electron admittance at the boundary of the space

Card 2/4

S/141/62/005/002/015/025 E192/E582

The scattering equation

charge. The scattering equation of the system is obtained by solving the Maxwell equations and taking into account the boundary conditions at the anode surface. The resulting equation is in the form:

$$(\gamma \omega_{s} - \omega)^{2} \zeta(\omega, \gamma) = \frac{1}{2} \omega_{p}^{2} \left[\zeta(\omega, \gamma) - 1 \right]$$
 (59)

where ω_{p} is the plasma frequency,

 ω_s^r is defined by:

$$\omega_{s}(\mathbf{r}) = \omega_{L} \left(1 - \frac{r_{K}^{2}}{r^{2}} \right); \quad \omega_{L} = \frac{eH_{o}}{2mc}$$
 (11),

y is the propagation constant for the wave along the surface of the anode, and

r is given by:

Card 3/4

The scattering equation

5/141/62/005/002/015/025 E192/E382

 $\zeta = \frac{\gamma - kr_a X}{2\gamma} \cdot \frac{r_a}{r_a}$

 $\gamma + kr_a X \setminus r_o$

where X is the mactance at the anode surface having a radius Eq. (39) can be used to investigate the operation of a surfacewave magnetron and other devices of M-type, where the electron beam moves at constant angular velocity and has a constant density. However, the equation cannot be applied to the case of a flat magnetron, where r . The author expresses his gratitude to E.A. Kaner, V.M. Kontorovich, G.Ya. Levin and I.D. Truten for their interest in this work and wluable advice and to A.V. Gaponov for useful discussion.

ASSOCIATION:

Institut radiofiziki i elektroniki AN UkrSSR

(Institute of Radiophysics and Electronics of

the AS UkrSSR)

SUBMITTED:

January 19, 1961

Card 4/4

MAIEYEV, V.Ya. Synthesis of a nonhomogeneous line using continuous fractions. Radiotekh. i elektron. 7 no.10:1829-1831 0'62. (MIRA 15:10) (Electric networks) (Radio lines)

MALEYEV, V.Ya.; TODOROV, I.N.

Principal possibility for determining nuclectide sequence in polynuclectide according to its vibration spectrum. Biofizika 10 no.2: 221-225 465. (MIRA 18:7)

1. Institut radiofiziki i elektroniki AN UkrSSR, Khar'kov.

موقعتونيون بورار	Tersional vibrations of bases in nucleic acids. Biofizika 10
	nc. 5:729-734 65. (MIRA 18:1
	1. Institut radiofiziki i elektroniki AN UkrSSR, Khar'kov.

<u>L 13964-66</u> EWA(j)/EWT(m)/EWA(b)-2 GS/JXT/RM ACC NR: AT6003456 SOURCE CODE: UR/	/0000/65/000/000/0083/0093
AUTHOR: Maleyev, V. Ya.; Todorov, I. N.; Kashpur, V. A.	µ ⁶ 3+1
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NITE: An electrical analog for associated vibrations in oblem of determining the nucleotide sequence	in <u>nucleic acid</u> and the
SOURCE: AN UkrSSR. Issledovaniya po bionike (Research i lumka, 1965, 83-93	
ropic TAGS: nucleic acid, electric analog, bionics, مم	lymer, ribration exectsum
ABSTRACT: The authors consider the theoretical possibil cleotide sequence in a nucleic acid from its vibrational model of a polynucleotide is proposed as a first approxise linear with the least rigid bonds between the separations model reflects several of the properties of the principles.	lity of determining the nu- l spectrum. A mechanical imation in which the polymer te monomers (nucleotides).

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ACC NR: AT5003455

Longitudinal oscillations are considered in which the displacement vectors of all masses are parallel to the axis of the molecule. The frequencies of oscillations in this system are assumed to be known and an electrical analog of the model is used as a basis for demonstrating how these data may be used for determining the order of the monomer sequence. The proposed method is illustrated by application to an electrical polymer model consisting of a nonuniform LC ladder network. The results show complete agreement in every case with the known sequence of monomers in nucleic acid chains. Orig. art. has: 2 figures, 3 tables, 22 formulas.

SUB CODE: 06,09/ SUBM DATE: 25Aug65/ ORIG REF: 005/ OTH REF: 005

Card 2/2

MALEYEV, Ye. A.

"Morphologic-Functional Analysis of the Occipital Region of the Cranium and Cervical Vertebrae in Vertebrates." Thesis of degree of Cand. Biological Sci. Sub 2 Nov 50, Moscow Oblast Pedagogical Inst.

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and in Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

MALEYEV, Yo. A.

Dinosauria - Mongolia

Some observations on the geological age and stratigraphic distribution of the armored dinosaurs of Mongolia. Dokl. AN SSSR, 85, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

MALLYEV, YL. A.

Mongolia - Dinosauria

Some observations on the geological age and stratigraphic distrivtion of the armored dinosaurs of Mongolia. Dokl. AN SSSR $^{\rm Q}5$ nc. 5, 1952.

MONTHLY LIST OF RUSSIAN ACCESSIONS. Library of Congress, November 1950. UNCLASSIFIED..

- 1. MALEYEV, Ye. A.
- 2. USSR (600)
- 4. Mongolia Dinosauria
- 7. New family of armored dinosaurs from upper Cretaceous formation in Mongolia. Dokl. AN SSSR. 87, no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

- 1. MALEYEV, Ye. A.
- 2. USSR (600)
- 4. Dinosuria--Mongolia
- New Ankylosaurus of the Upper Cretaceous strata in Mcngolia. Dokl. AN SSSR 87 no. 2 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

- 1. MALEYEV, YE. A.
- 2. USSA (600)
- 4. Dinasauria
- 7. Discoveries of new armor-clad dinosaurs in Mongolia. Priroda, 42, no. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

USSR/ Geology - Paleontology

Card 1/1 Pub. 86 - 24/40

Authors : Meleyev, E. A. Cend. of Biolog. Sc.

• A new tortoise-like lizard in Mongolia Title

Periodical : Priroda 3, 106-108, Mar 1954

Abstract : Paleontological data are presented on a certain kind of dinosaur (Theri-

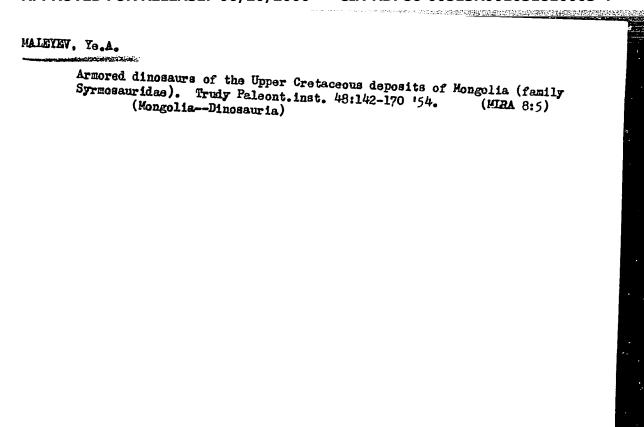
zinosaurus), remains of which were discovered in 1948 in Mongolia.

Illustrations.

Institution: Academy of Sciences USSR, Paleontological Institute

Submitted :

CIA-RDP86-00513R001031810003-4" APPROVED FOR RELEASE: 06/20/2000



USER/Geology - Paleontology

Fard 1/1 Pub. 86 - 23/36

Authors : Maleyer, Ye. A., Cand. Biol. Sc.

Title : Carnivorous dinessure of Mongolia

Fariodical : Prircia 44/6, 112 - 115, Jun 1955

Abstract : A discussion is presented of the general subject of paleontology with special reference to animals of the dinessur type. The work of Soviet scientists in collecting specimens from Mongolia is recounted. These comprised some of the largest, as well as the smallest dinessure and birds. Illustrations.

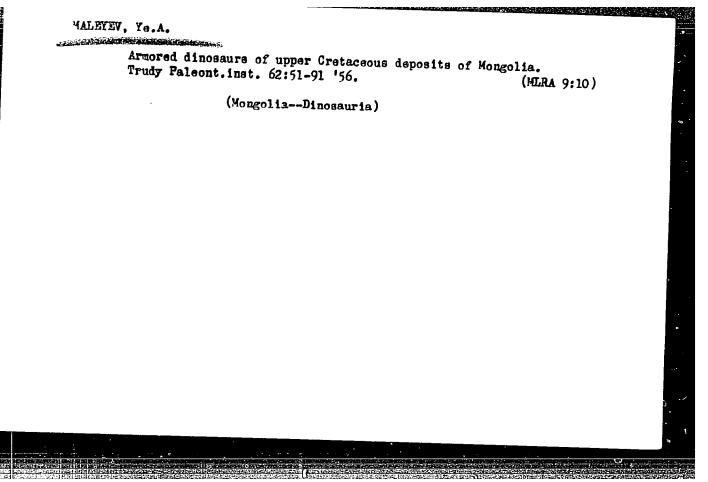
Institution: Paleontlypy Snot, AS USSE

Submitted:

MALEYEV, Ye.A.

Giant predatory diseasurs found in Mongolia. Bekl. AN SSSR 104 no.4:634-637 0 155. (MLRA 9:2)

1.Palcontologicheskiy institut Akademii nauk SSSR. Predstavlene akademikem Ye.N.Pavlovskim.
(Gebi--Dinosauria)



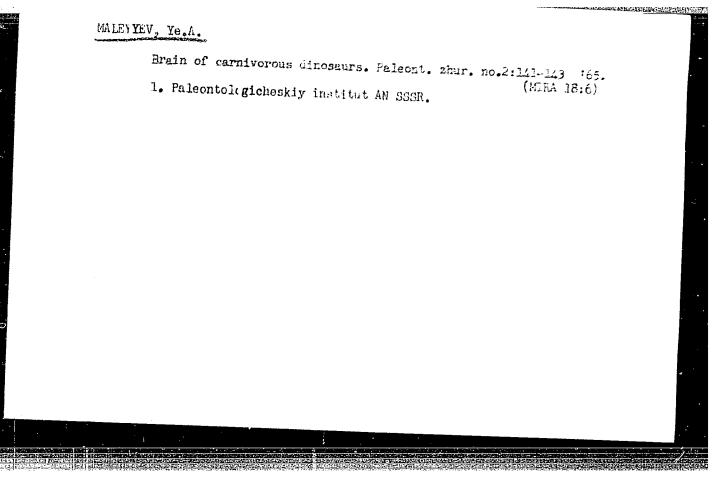
MALEYEV, Ye.A., kand.biolog.nauk; DAREVSKIY, I.S., kand.biolog.nauk

"Dragons" of Komodo Island. Priroda 52 no.3:24-35 '63.

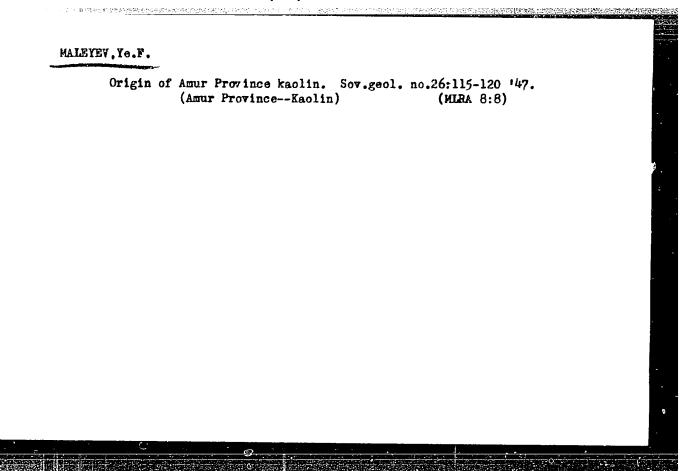
1. Paleontologicheskiy institut AN SSSR, Moskva (for Maleyev).

2. Zoologicheskiy institut AN SSSR, Leningrad (for Darevskiy).

(Komodo Island—Lizards)



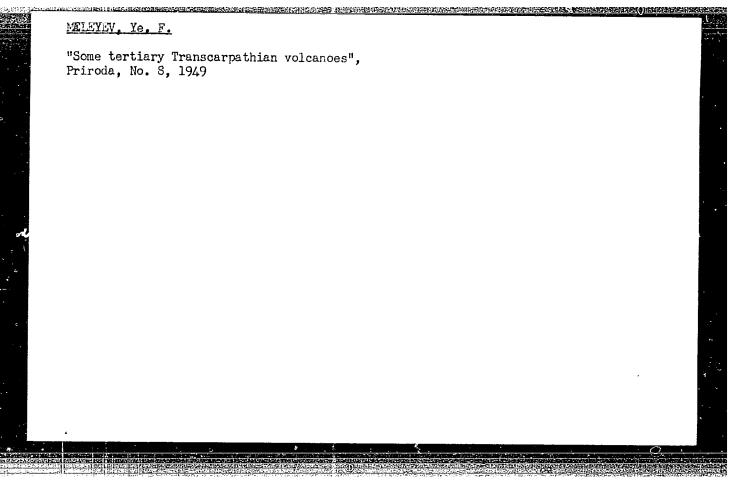
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	MALEYEV, Ye. F.	
	"Three Types of Lakes in the Amur River Villey," Priroda, No. ℓ , 194 ℓ .	
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hall 17, Ye. F.

Inleyev, Te. F. "On the problem of the extraction of bleachin eleva from the Cortex deposit in Zakarnut's," lineral, about k, e. 2, 197, p. 1-3-97

2: 3-3850, 16 June 53, (Lotaria Marmal) to kin Itania, m. 1, 100.



MALEYEV, YE. F.
"Bombs from Ancient Volcanoes of the Amur-Ussuri Plains,"
SO: Priroda, No. 12, 1949.

MALEYEV, YE. F.

11-8-8/14

AUTHOR:

Maleyev, Ye.F.

TITLE:

On the Suyfun Series and Age of Baselts in South Primor'ye (O suyfuyskoy svite i vozraste bazal'tov Yuzhnogo Primor'ya)

PERIODICAL:

Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1957,

8, p 86-92 (USSR)

ABSTRACT:

The author investigated tuffaceous rocks of the Suyfun series and basalts in South Primor'ye and arrived at the following

1. The Suyfun series cannot be divided into two series of different age, conglomerate and fuffaceous rocks, as it was suggested by P.N. Kropotkin (Ref. 3), as the sedimentation of conglomerate proceeded simultaneously with the accumulation of tuffaceous material in different parts of the basin. 2. The Suyfun series is a composite complex of sedimentary and tuffaceous rocks. These rocks decrease in thickness and coarseness with the distance from the centers of eruption. In the remotest parts of the Suyfun series tuffaceous rocks taper, and this series becomes of arenaceous-conglomerate

3. The earliest eruptions of basalts are of an ege not older composition. than the Lower Pliocene. The upper age limit for these

Card 1/2

On the Suyfun Series and Age of Basalts in South Primor'ye

11-8-8/14

basalts has not as yet been established.

The article contains 1 figure, 3 tables and 5 Slavic re-

ferences.

ASSOCTATION:

USSR Ministry of Geology and Mineral Resources Protection, Ukrainian Geological Administration (Ministerstvo geologii i okhrany nedr SSSR, Ukrainskoye geologicheskoye upravleniye),

Kiyev

SUBMITTED:

12 June, 1956

Card 2/2

MALEYEV, Ye.F.

PHASE I BOOK EXPLOITATION 1021

Akademiya nauk SSSR. Dal'nevostochnyy filial

Prirodnyye sorbenty Dal'nego Vostoka (Natural Sorbents of the Far East) Moscow, Izd-vo AN SSSR, 1958. 127 p. (Series: <u>Its</u>: Trudy, seriya khimicheskaya, vyp. 3) 1,600 copies printed.

Resp. Ed.: Bykov, V.T., Professor; Ed. of Publishing House: Bankvitser, A.L.; Tech. Ed.: Prusakova, T.A.

PURPOSE: The present collection of articles is addressed to engineering and technical personnel of industrial, planning and managing bodies in Soviet industries, and members of scientific and educational institutions dealing with the problems of bleaching processes.

COVERAGE: The rapidly expanding industries of the Soviet Far East are continuously increasing their demands for various types of sorbents for processing and refining mineral and vegetable oils, animal fats, etc. The present collection of 13 articles describes the various types of natural sorbents extracted in the Soviet Far East, their

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Natural Sorbents of the Far East 1021

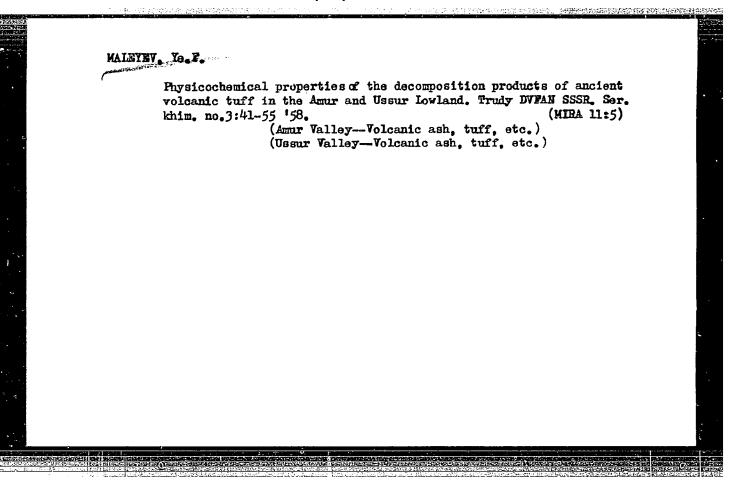
physical-chemical and adsorptive properties, the history of their industrial exploitation, the geological formations in which they are found, the theory of their bleaching and refining action, the effect of weathering on their structure, and their uses in industry. The studies conducted by the authors indicate the presence of large quantities of high-quality natural sorbents in the Soviet Far East sufficient to satisfy local demands, thus eliminating the necessity of their import from other parts of the USSR.

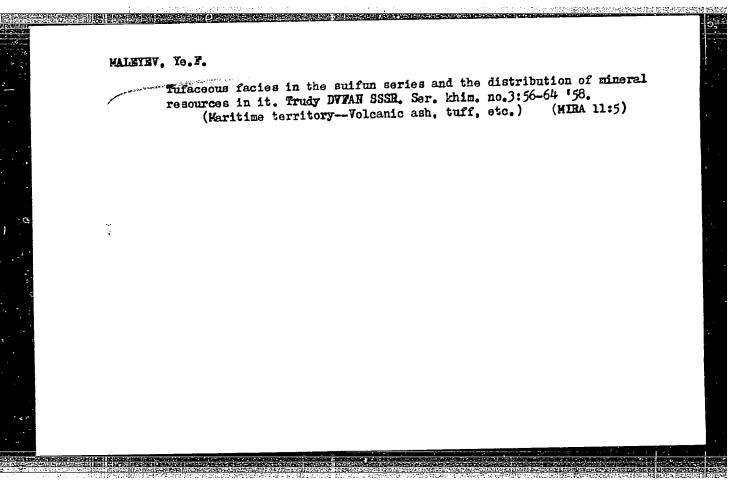
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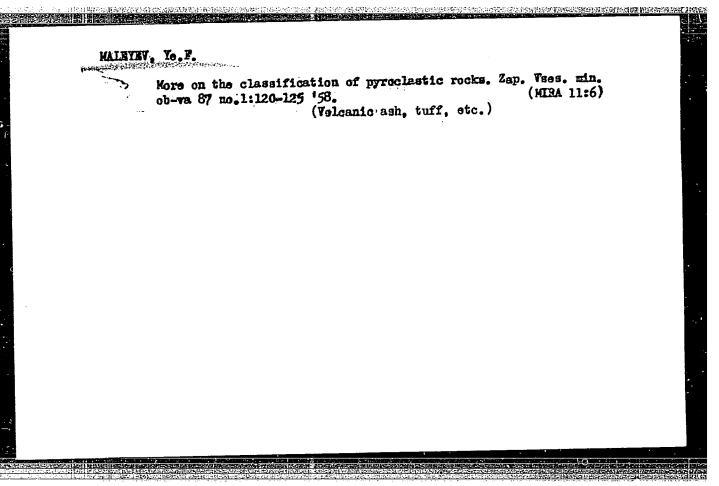
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MALEYEV, Ye.F. Recent tectonic movements in the Vygorlat-Huta zone. Geol. sbor. [Lyov] no.5/6:121-127 158. (MIRA 12:10)

1. Ukrainskoye geologicheskoye upravleniye, Kiyev. (Transcarpathia--Geology, Structural)

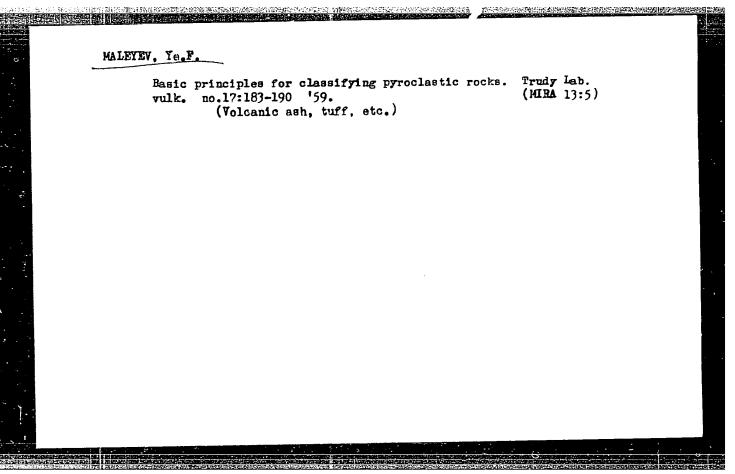


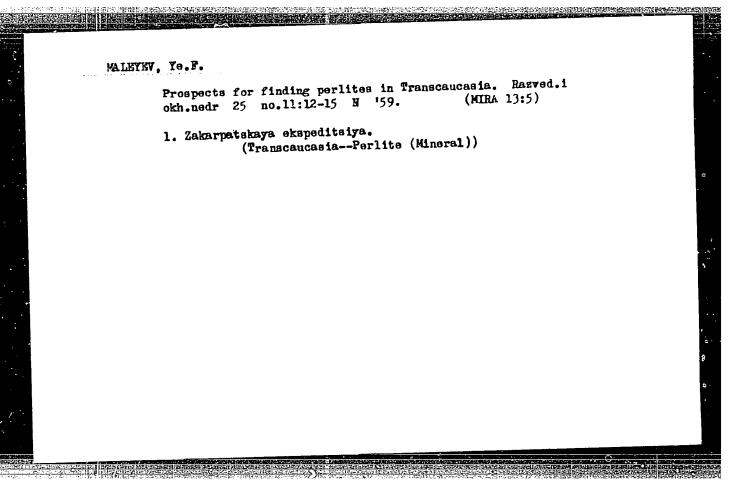
- Section		
;	AUTHOR:	Muleyev. Ye.F. 50V/11-59-2-11/14
	TITLE:	On the Tuff-Lavas and Ignimbrites (In Connection with the Publication of the Symposium "Tuff-Lavas") (O tufolavakh i ignimbritakh v svyazi s vykhodom sbornika "Tufolavy")
	PERIODICAL:	Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1959, Nr 2, p 123 (USSR)
	ABSTRACT:	This symposium was edited by the Laboratory of Volcanology of the AS USSR and contains articles by V.I. Vlodavets, V. P. Petrov, M.A. Favorskaya, I.M. Volovikova and B.L. Rybalov, all of which deal with the problem of tuff-lavas and ignimbrites. The author finds that the difference between these two rocks is not stressed enough. The tuff-lavas are volcanic rocks cemented together by lava, and the ignimbrites are pyroclastic rocks composed of caked
	Card 1/2	together pieces of lava, glass and crystals.

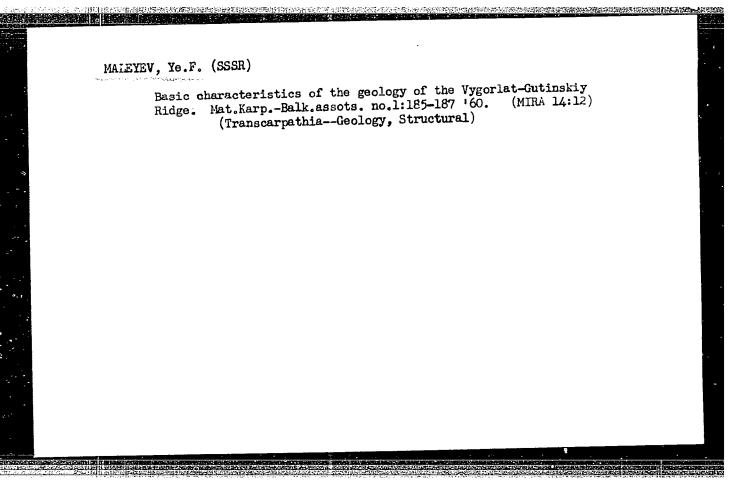
On the Tuff-Lavas and Ignimbrites (In Connection with the Publication of the Symposium "Tuff-Lavas")

ASSOCIATION: Laboratoriya vulkanologii AN SSSR (The Laboratory of Volcanology of the Academy of Sciences of the USSR)

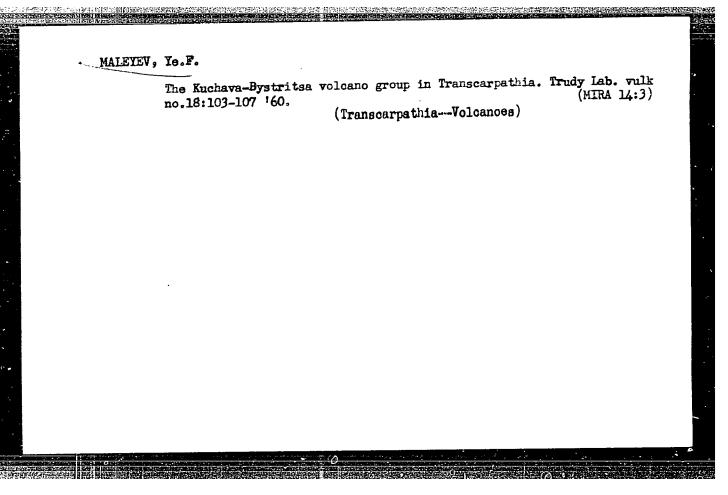
Card 2/2







	MALEYEV, Ye.F.
•	Mapping of faults in volcanic areas. Sov. gool. 3 no.10:141-143 0'60. (MIRA 13:10)
	l. Iaboratoriya vulkanologii AN SSSR. (Faults (Geology)Kaps) (Volcanoes)

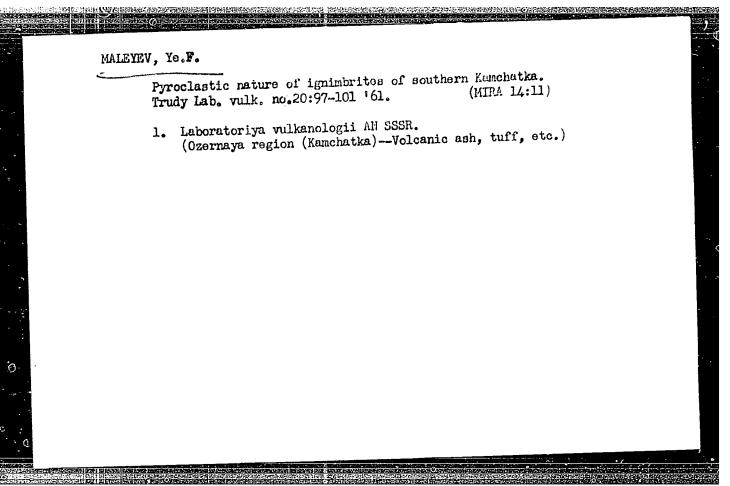


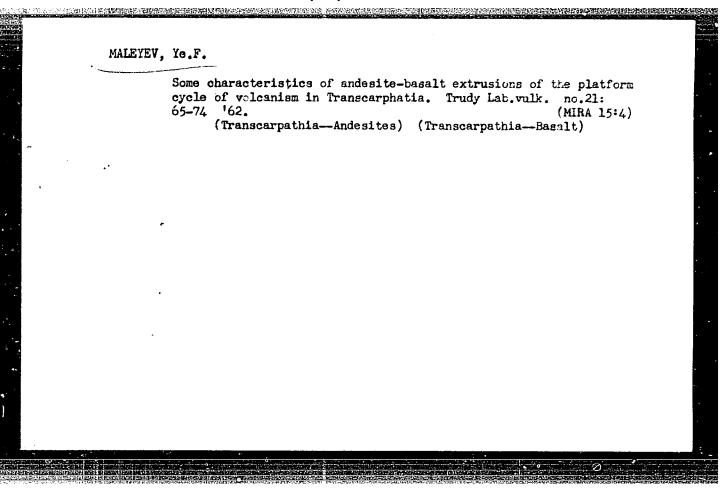
MALEYEV, Ye.F.

Recent data on the phases of volcanism in the Soviet Carpathians.

Dokl.AN SSSR 133 no.5:1165-1168 Ag '60. (MEA 13:8)

1. Laboratoriya vulkanologii akademii nauk SSSR. Predstavleno akademikom D.S. Korzhinskim.
(Carpathian Mountains--Geology, Structural)





MALEYEV, Ye.F.

New finds of igneous garnet in Transcarpathia. Izv. AN SSSR.
Ser.geol. 27 no.7:28-34 Jl '62. (NIRA 15:6)

1. Laboratoriya vulkanologii AN SSSR, Moskva.
(Transcarpathia --Garnet)

MALEYEV, Ye.F.

Association of mineralization with volcanic formations in Transcarpathia. Dokl. AN SSSR 142 no.1:167-170 Ja 162.

(MIRA 14:12)

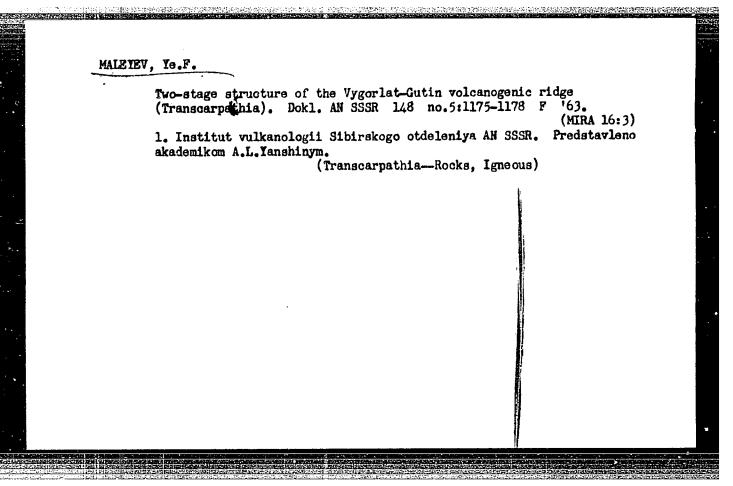
1. Laboratoriya vulkanologii AN SSSR. Predstavleno akademikom D.S. Korzhinskim.

(Transcarpathia--Ore deposits)

MALEYEV, Yo.F.

Relation between ore formation and volcanism in Transcarpathia. Sov. geol. 6 no.1:82-96 Ja '63. (MIRA 16:6)

1. Institut vulkanologii Sibirskogo otdeleniya AN SSSR. (Transcarpathia—Ore deposits)



MAJEYEV, Ye.F.

Development of volcanicity types as exemplified by the Eastern Carpathians. Dokl. AN SSSR 148 no.6:1374-1377 F '63. (MIRA 16:3)

1. Institut vulkanologii Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom N.M.Strakhovya.

(Carpathian Mountains—Rocks, Igneous)

MALEYEV, Yevgeniy Fedotovich; RUDICH, K.N., red.; SMIRNOVA, Z.A., red.; SHMAKOVA, T.M., tekhn. red.

[Volcanoclastic rocks] Vulkanoklasticheskie gornye porody.
Moskva, Gosgeoltekhizdat, 1963. 167 p. (MIRA 16:12)

(Volcanic ash, tuff, etc.)

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